

Washington State Department of Transportation / Washington State Ferries
Summary and Status of August 1, 2007 JTC Deliverable
Cost Allocation Methodology and LCCM Update
August 28, 2007

2007 Legislative Requirements

The 2007 transportation budget Engrossed Substitute House Bill (ESHB) 1094 requires that Washington State Department of Transportation (WSDOT) / Washington State Ferries (WSF) update the Life Cycle Cost Model (LCCM) and develop a cost allocation methodology proposal per the requirements of ESHB 2358 by August 1, 2007.

Cost Allocation Methodology

- In association with updating capital definitions based on current Office of Financial Management (OFM) standards, ESHB 2358 requires WSDOT/WSF to develop a cost allocation methodology proposal that distributes system-wide and administrative program costs to specific capital projects. As required under ESHB 1094, the August 2007 deliverable included methodology and a proposal for Joint Transportation Committee (JTC) review and input prior to implementation. A description and schedule for implementation is included as part of the submittal.
- The draft WSDOT/WSF proposal is pending final edits and review by OFM, concurrent with the JTC review

LCCM Update Activities

The 2007 LCCM update for the ferry terminals is expected to noticeably reduce the 16-year preservation funding need for terminals, due to the fact that so many structures and systems are being replaced with modern materials and designs that have longer life cycles associated with them. These changes should positively factor into the broader legislative studies focused on WSDOT/WSF's long-term financial needs.

WSDOT/WSF has taken the following steps to update the LCCM:

1. The inventory has been modified in the Capital Planning System (CPS) so that utilities and structures not yet built are no longer included.
2. The former term, Standard Life Cycle, for the terminal structures and systems has been revised to "Service Life," per industry best practices. The update has resulted in an increased service life for many of the terminal structures within the system. The rating system has also been improved so that the lowest possible remaining service life is 0 years (eliminating showing negative life for a structure).
3. Rating methodologies and inspection procedures are updated to reflect the revised methods for determining the remaining service life of the structures and systems and to provide assurance that all structures and systems are inspected within a 3-year period.

Summary of LCCM and Cost Allocation Methodology

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4. Inspections have recently been completed to provide current condition information. The process of updating the inventory and adjusting ratings based on current condition has made significant progress. The effort to update the LCCM is expected to be complete, including all final reviews for quality and accuracy, by September 14, 2007.

Support Documentation

Support documents are available electronically from WSDOT or JTC staff and include the following:

- o Cost allocation methodology proposal, including a draft implementation plan and schedule;
- o Draft capital definition crosswalk that describes the changes between previous definitions and those currently proposed, with reference to current OFM definitions;
- o Technical papers summarizing the rationale behind design and service life adjustments for terminal structures and systems within the updated LCCM;
- o Technical paper summarizing the updated terminal inspection procedures to ensure that all structures and systems are inspected within a 3-year period;
- o Draft inventory list of all terminal structures and systems that are included within the LCCM update. The inventory submitted in this deliverable is only partially complete due to the inspections schedule and time required to update the LCCM based on the inspections findings. A full and complete inventory will be submitted by September 14, 2007.

WSDOT/WSF Contact: Traci Brewer-Rogstad, Deputy Executive Director, 206-515-3410

Executive Summary and Status Report
Ferry System Capital Cost Allocation Methodology Proposal
August 28, 2007

Note: The draft WSDOT/WSF proposal is pending final edits and review by OFM, concurrent with the JTC review.

Purpose

This is a status report on the Washington State Department of Transportation (WSDOT) /Washington State Ferries (WSF) implementation of legislative directives to use the Office of Financial Management (OFM) capital definitions and a capital cost allocation methodology.

Why is the Legislature interested in capital cost allocation for WSDOT/WSF?

A capital cost allocation methodology will help policy-makers make decisions about the use of WSDOT/WSF resources. It is an important element of fully allocated costing analysis which allows the display and comparison of the total costs of WSDOT/WSF service alternatives. It also facilitates use of investment classifications, such as preservation and improvements.

What directions has the Legislature given to WSDOT/WSF?

- WSDOT/WSF is to develop a cost allocation methodology that conforms to ESHB 2358 directions on definitions and expenditures (Sec. 225(8)(d), ESHB 1094, Laws of 2007).
- Capital definitions must conform to OFM definitions (Sec. 3, ESHB 2358, Laws of 2007) and other requirements (Sec. 9, 10 and 11, ESHB 2358, Laws of 2007).
- System-wide costs are to be allocated to projects (Sec. 9(3) & 15(1), ESHB 2358).

What is WSDOT/WSF's draft proposal for a capital cost allocation methodology?

- *Objective:* To ensure that all capital costs are fully allocated among terminal and vessel location program item numbers (PINs) in order to support fully allocated costing analysis of ferry services and classification of investments as preservation and improvement. Note a PIN is used by the Legislature to budget and account for capital costs and is synonymous with the term capital project.
- *Location PINs:* Direct capital investment in each terminal and vessel (location) will be made through preservation and/or improvement PINs. WSDOT/WSF also proposes to use these location PINs as the cost collection centers for system-wide direct and shared costs.
- *System-wide infrastructure PINs* make direct investments in multiple terminals and vessels. They will be eliminated and their direct costs merged into appropriate location PINs.
- *System-wide administrative (overhead) PINs* already use a cost allocation system to distribute shared costs. This method may be modified to fit the new cost allocation plan.
- *System-wide project support PINs* will distribute shared costs to location PINs using appropriate cost allocation methods.

What is WSDOT/WSF's work plan and schedule for implementing a cost allocation methodology?

Responsibility	Date Due	Task: Develop and Implement Cost Allocation Plan
WSDOT/WSF	13-Jul-07	1 Develop work plan and initial specifications of the capital cost allocation plan
WSDOT/WSF	26-Jul-07	2 Conduct internal critique of initial specifications of the capital cost allocation plan
WSDOT/WSF	26-Jul-07	3 Forward initial capital cost allocation plan to OFM, the JTC Staff Group et al. for review and advice
JTC Staff Group	1-Aug-07	4 Review progress report on capital cost allocation plan
WSDOT/WSF	30-Nov-07	5 Design capital cost allocation system in TRAINS
JTC Staff Group	31-Dec-07	6 Complete study of capital cost allocation plan
WSDOT/WSF	30-Apr-08	7 Implement capital cost allocation system in TRAINS
WSDOT/WSF	30-Jun-08	8 Complete actions needed to use capital cost allocation system in FY 2009
JLARC	31-Jan-10	9 Complete audit of capital cost allocation plan and report to the Legislature

What is the status of the work plan?

ESHB 1094 interlocks requirements for use of OFM capital definitions and a cost allocation methodology. The status of these two items is reported below.

Capital Definitions

- WSDOT/WSF's policy statement on capital definitions was updated on June 18, 2007 to conform to the latest OFM Capital Budget Instructions (issued APR 06) and provisions of ESHB 2358.
- WSDOT/WSF's Life Cycle Cost Model (LCCM) will be restructured in September 2007 to conform to these definitions.
- WSDOT/WSF will update its policy statement and LCCM to conform to revised OFM definitions to be published in OFM's April 2008 Capital Budget Instructions or earlier, if OFM publishes new guidance sooner.

Cost Allocation Plan

- WSDOT/WSF completed development and internal review of a cost allocation plan on July 26, 2007.
- WSDOT/WSF delivered the draft proposal to the JTC Staff Group in early August 2007.
- WSDOT/WSF is coordinating final review with OFM, the JTC Staff, and WSDOT executives.
- WSDOT/WSF will implement the cost allocation plan in WSDOT's accounting system (TRAINS) by November 2007. It will be used in developing the agency request 2009 capital project list.

Conclusion

WSDOT/WSF proposes to implement a capital cost allocation plan to allow for fully allocated costing analysis and for classification of capital investments to preservation or improvements. The capital program is being restructured to allow for location PINs showing direct investments in terminals and vessels, while also allocating shared administration (overhead) and project support costs.

Washington State Ferries
Terminal Program Life Cycle Cost Model (LCCM) Update
Executive Summary and Status Report
August 28, 2007

Introduction

WSDOT/WSF approach to meet the requirements of ESHB 2358, which states that the Life Cycle Cost Model (LCCM) database is to be revised and updated by August 1, 2007 is outlined below. Included are: activity status, summary notes related to process improvement work, and timelines for completion.

LCCM Update Requirements and Activities

The following are the primary legislative requirements for the LCCM update:

1. *The LCCM does not include items that are not replaced on a standard life cycle or those yet to be built.*

Complete. The WSDOT/WSF Project Development Office utilized coding within the WSDOT/WSF Capital Planning System (CPS) data base to filter out all non-standard life cycle items as well as future preservation needs that have not yet been built.

2. *All estimated life cycles used in the LCCM fit into one of the following categories:*
 - i. *available industry standards are used*
 - ii. *when available industry standards are not available, department-adopted standard life cycles based on the experience of similar public and private entities*

Complete. All life cycles for those items where a standard life cycle is applicable have been reviewed and life cycles adjusted where appropriate to reflect industry best practices. The back-up documentation includes three memorandums written by WSDOT/WSF subject matter experts explaining the rationale behind all changes, as well as summarizing the changes in tabular format. An important footnote is that the previously utilized term 'Standard Life Cycle' has now been replaced by the more appropriate term 'Service Life', which is better aligned with industry standard terminology.

3. *Estimated life cycles are adjusted for asset condition on all assets that have had an inspection within the last three years.*

In Progress. Completing the 2007 inspection program and incorporating all necessary adjustments to life cycles and cost estimates has been a significant undertaking. The update process is iterative. It involves identification of initial service life changes and further adjustments based upon actual inspection reports and results of quality assurance and control (QA/QC) review. Inspections are complete, and results are being documented, reviewed, and incorporated into

the LCCM database. A complete updated inventory will be available by mid-September 2007.

- In addition to berthing structures (wingwalls and dolphins), non-berthing structures (transfer spans, towers, bridge seats, trestles, overhead loading structures), and mechanical and electrical systems, this years inspection program has comprehensively covered buildings and pavement, elements which previously have not had a well-defined inspection process and program.
4. *A plan is in place that describes how all assets in the LCCM will be inspected at least every three years.*

Complete. Procedures for ferry terminal inspections have been updated to ensure that all terminal LCCM elements will be inspected at least every three years.

Updated LCCM Inventory

The proposal includes a copy of the incomplete revised LCCM inventory, to clearly highlight all revisions and show all updates.

The work to input the results of all inspections is underway. A final inventory report will be provided by September 14, 2007, accompanied by a crosswalk document describing all changes to the inventory since 2005.

Support Documentation

Support documentation has been compiled for review and is available upon request. It includes:

- descriptions of revisions to service life;
- crosswalk between the inspection process and determination of remaining service life;
- logic diagrams for each separate inspection process;
- updated procedures for ferry terminal inspections;
- glossary on terminology and functions; and
- plan diagrams of terminal structures.